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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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AKERMAN SENTERFITT P. O. BOX 3188 WEST PALM BEACH, FL 33402-3188				
			EXAMINER BRANT, DMITRY	
			ART UNIT 2655	PAPER NUMBER 4
DATE MAILED: 05/25/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/827,700

Applicant(s)

LEWIS ET AL.

Examiner

Dmitry Brant

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 2/19/04.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see amendment (page 7), filed 2/19/2004, with respect to the rejections of claim(s) 1-23 under obviousness over Yuschik et al. and VoiceXML have been fully considered but are moot in view of the new grounds for rejection. The applicant has modified the language of claims 1, 2, 9, 12, 13 and 21, and as a result, rendered previous rejections inapplicable because VoiceXML reference no longer applies to prompts that change solely based on the number of correct responses. The examiner notes that the previous claim language recited both correct and incorrect responses, thus making the VoiceXML reference appropriate.

2. Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new grounds of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yuschik (6,526,382) in view of Surace et al. (6,144,938).

The U.S. patents of Yuschik and Surace et al. teach computer-based apparatus (system) and hence the methods necessary to implement this system are inevitably part of Yuschik and Surace et al. 's teachings.

As per claims 1 and 12, Yuschik discloses a system comprised of Voice Activated User Interface (10, FIG. 1) through speaker and microphone (12, 14, FIG. 1), utilizing two alternate prompting structures (Column 4, lines 1-4) depending on user errors (Col. 4, lines 7-9). In addition, Yuschik's system is implemented in software (Column 3, lines 17-19).

Yuschik does not disclose "said prompt delivery system delivering tapered prompts in response to the determination of a predetermined quantity of said correct responses."

Surace et al. teach a concept which states the following:" the shortened prompt rule is based on a social-psychology empirical observation that the length of prompts should become shorter within a session and across sessions, unless the user is having trouble, in which case the prompts should become longer (more detailed)." (Col. 10, lines 6-36) Surace et al. also provide an example of changing the prompt in response to a predetermined number of incorrect responses. (Col. 29-30, Table A, lines 1-4 - "if failure_count < 4 do ... else ...> .) However, it would have been obvious to the one skilled in the art that the same threshold approach could be applied by using correct responses, since Surace et al. teach that "length of prompts should become shorter within session...unless user is having trouble." In this situation, one would count the

number of correct responses in order to determine user's comfort level with the system and shorten the prompts accordingly.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Yuschik as taught by Surace et al. in order to determine user's comfort level with the system and switch to shorter prompts when user becomes sufficiently comfortable with the system. Such practice would follow a social-psychological observation of Surace et al. and ensure that the users are not needlessly presented with long prompts when they are comfortable with the system's interface.

As per claims 2 and 13, Yuschik does not disclose a system "wherein said prompt delivery system delivers tapered prompts for subsequent and different input requests made within an application using said prompt delivery system to a user that provided the predetermined quantity of correct responses."

Surace et al. teach that "*the length of prompts should become shorter within a session and across sessions*" (Col. 10, line 34). User's performance is tracked across sessions (between different prompts) by storing user's performance results in subscriber's prompt and recognition histories (Col. 13, lines 60-65 and Col. 14, lines 52-57). Therefore, it would have been obvious to one of ordinary skill in the art that such performance history would include the number of correct and incorrect responses the user made to the system. Consequently, the system would adjust the prompt level based on the history of user's responses and according to social-psychological theory (Col. 10, lines 6-36)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Yuschik as taught by Surace et al. in order to track user's performance across different prompts of an application and adjust the prompt length based on the system's assessment of user's skill level (social-psychological theory). Such practice would make user interface more efficient as it would ensure that the user's performance is tracked across the overall system and she is not needlessly assaulted with long prompts once she becomes comfortable with the interface.

As per claims 3-4, 15-16, Yuschik does not disclose "said prompt delivery system delivers tapered prompts to said user until said user provides an incorrect response" and "said prompt delivery system delivers full prompts following an incorrect response until a subsequent prerequisite number of correct responses are provided by a user."

Surace et al. teach that *the length of prompts should become shorter within a session and across sessions, unless the user is having trouble, in which case the prompts should become longer (more detailed)*" (Col. 10, lines 6-36). Therefore, the system would provide longer prompts once the user begins to give incorrect responses (or makes a certain number of incorrect responses) (See example at Col. 29-30, Table A, lines 1-4 - "if failure_count < 4 do ... else ...> .) Alternatively, once the user established that he is comfortable with the interface, the system should go back to shorter prompts (see reasons for rejection of claim 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Yuschik as taught by Surace et al. in order to switch to longer prompts once the user makes a mistake, indicating that he is not sufficiently comfortable using the system. This would follow the social-psychological principle taught by Surace et al.

As per claims 5 and 17, Yuschik does not disclose a system "wherein said prerequisite number of correct responses to full prompts is increased if an incorrect response is received."

Surace et al. teach that "*the length of prompts should become shorter within a session and across sessions*" (Col. 10, line 34). Surace et al. also provide an example of changing the prompt in response to a number of incorrect responses. (Col. 29-30, Table A, lines 1-4 - "if failure_count < 4 do ... else ...> .) However, it would have been obvious to the one skilled in the art that the same threshold approach could be applied by using correct responses and that the number of prerequisite correct responses could be a variable (as opposed to a fixed number).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Yuschik as taught by Surace et al. in order to protect the user from being exposed to shorter prompts too quickly. Such approach decreases the chance of a system switching back to tapered prompts before the user is fully ready to start using tapered prompts and ensures that the system increases the switching requirements for the user as she makes more and more mistakes.

As per claims 6 and 18, Yuschik does not disclose a system “wherein said predetermined quantity of correct responses is increased for each sequential incorrect response that is received.”

Surace et al. teach that “*the length of prompts should become shorter within a session and across sessions*” (Col. 10, line 34). Surace et al. also provide an example of changing the prompt in response to a number of incorrect responses. (Col. 29-30, Table A, lines 1-4 - “if failure_count < 4 do ... else ...> .) However, it would have been obvious to the one skilled in the art that the same threshold approach could be applied by using correct responses and that the number of prerequisite correct responses could be a variable (as opposed to a fixed number).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Yuschik as taught by Surace et al. in order to protect the user from being exposed to shorter prompts too quickly. Such approach decreases the chance of a system switching back to tapered prompts before the user is fully ready to start using tapered prompts and ensures that the system increases the switching requirements for the user as she makes more and more mistakes.

As per claims 7 and 19, Yuschik does not disclose a system “wherein said incorrect responses include at least one selected from the group consisting of out-of-grammar responses, silence time outs, and help responses.”

Surace et al. teach the use of timeout outs (Col. 29, "Col: user says", TIMEOUT label - towards upper 1/3 of the page), help calls (Col. 29, "Col: user says: help", line 1) and incorrect responses (Col. 29, "Col: user says: BAD_SCORE - line 3)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Yuschik as taught by Surace et al. in order to improve the responsiveness of the system as it would support different types of indicators of user's difficulty with the system: incorrect responses, pauses and calls for help.

As per claims 8 and 20, Yuschik does not disclose a system "wherein said prompt delivery system delivers tapered prompts in response to a determination that correct responses have been provided by a user to a minimum prerequisite proportion of said prompts."

As explained in the rejection for claim 1, Surace et al. teach that *the length of prompts should become shorter within a session and across sessions*, unless the user is having trouble, in which case the prompts should become longer. (Col. 10, lines 6-36) Surace et al. also provide an example of changing the prompt in response to a number of incorrect responses. (Col. 29-30, Table A, lines 1-4 - "if failure_count < 4 do ... else ...> .) However, it would have been obvious to the one skilled in the art that the same threshold approach could be applied by using correct responses, since Surace et al. teach that "length of prompts should become shorter within session...unless user is having trouble." One could make the determination that user is becoming familiar with

the task by counting correct responses or looking at the proportion of correct responses to the total number of responses (this is well-known technique in programming).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Yuschik as taught by Surace et al. in order to determine user's "average" comfort level with the system and switch to shorter prompts when user becomes sufficiently comfortable with the system. This would allow the system to switch to "tapered" mode if user proved that he was "on average" capable of using the tapered prompts and was correct in, say, 90% of the times.

As per claims 9 and 21, Yuschik discloses the use of segmented interfaces using "chunks" (Column 18, lines 33-36).

Yuschik does not disclose interface that is "segmented according to application subject matter" and "a prompt delivery system [that] delivers tapered prompts in a segment in response to a determination that correct responses have been provided by a user to a prerequisite quantity of said prompts while in said segment."

Surace et al. teach interface that is context-sensitive (Col. 10, lines 37-46) and thus is dependent on subject matter. In addition, phrases are organized in contexts or domains (Col. 13, lines 28-32). Therefore, the prompts would necessarily depend on the subject matter of the conversation state (segment) of the user-machine conversation.

Surace et al. also teach that *the length of prompts should become shorter within a session and across sessions*, unless the user is having trouble, in which case the

prompts should become longer. (Col. 10, lines 6-36) Surace et al. also provide an example of changing the prompt in response to a predetermined number of incorrect responses. (Col. 29-30, Table A, lines 1-4 - "if failure_count < 4 do ... else ...> .) However, it would have been obvious to the one skilled in the art that the same threshold approach could be applied by using correct responses, since Surace et al. teach that "length of prompts should become shorter within session...unless user is having trouble." In this situation, one would count the number of correct responses in order to determine user's comfort level with the system.

Therefore, it would have been obvious to the one skilled in the art to modify Yuschik as taught by Surace et al. in order to switch to shorter prompts, since this would allow a user to navigate through the menu segments using the "tapered" prompts when the user proves to the system that he is sufficiently proficient with the use of the system.

As per claims 10 and 22, Yuschik does not disclose a system "wherein said prerequisite quantity of correct responses comprises a prerequisite number of sequential correct responses provided by the user while in said segment."

Surace et al. teach that *the length of prompts should become shorter within a session and across sessions*, unless the user is having trouble, in which case the prompts should become longer. (Col. 10, lines 6-36) Surace et al. also provide an example of changing the prompt in response to a number of incorrect responses. (Col. 29-30, Table A, lines 1-4 - "if failure_count < 4 do ... else ...> .) However, it would have

been obvious to the one skilled in the art that the same threshold approach could be applied by using correct responses, since Surace et al. teach that "length of prompts should become shorter within session...unless user is having trouble." One could make the determination that user is becoming familiar with the task by counting sequential correct responses.

Therefore, it would have been obvious to the one skilled in the art to modify Yuschik as taught by Surace et al. in order to switch to shorter prompts, since this would allow a user to navigate through the menu segments using the "tapered" prompts when the user proves to the system that he is sufficiently proficient with the use of the system because he keeps answering the questions correctly.

As per claims 11 and 23, Yuschik does not disclose a system "wherein said prerequisite quantity of correct responses comprises a prerequisite minimum proportion of correct responses provided by the user while in said segment."

Surace et al. teach that *the length of prompts should become shorter within a session and across sessions*, unless the user is having trouble, in which case the prompts should become longer. (Col. 10, lines 6-36) Surace et al. also provide an example of changing the prompt in response to a number of incorrect responses. (Col. 29-30, Table A, lines 1-4 - "if failure_count < 4 do ... else ...> .) However, it would have been obvious to the one skilled in the art that the same threshold approach could be applied by using correct responses, since Surace et al. teach that "length of prompts should become shorter within session...unless user is having trouble." One could make

the determination that user is becoming familiar with the task by looking at the average number of correct responses in proportion to the total number of responses.

Therefore, it would have been obvious to the one skilled in the art to modify Yuschik as taught by Surace et al. in order to switch to shorter prompts, since this would allow a user to navigate through the menu segments using the “tapered” prompts when the user proves to the system that he is sufficiently proficient with the use of the system because the user proved that he was “on average” capable of using the tapered prompts and was correct in, for example, 90% of the times.

As per claim 14, Yuschik does not disclose that “tapered prompts are delivered when a prerequisite number of correct responses to full prompts are received.”

Surace et al. teach a concept which states the following: “the shortened prompt rule is based on a social-psychology empirical observation that the length of prompts should become shorter within a session and across sessions, unless the user is having trouble, in which case the prompts should become longer (more detailed).” (Col. 10, lines 6-36) Surace et al. also provide an example of changing the prompt in response to a predetermined number of incorrect responses. (Col. 29-30, Table A, lines 1-4 - “if failure_count < 4 do ... else ...> .) However, it would have been obvious to the one skilled in the art that the same threshold approach could be applied by using correct responses, since Surace et al. teach that “length of prompts should become shorter within session...unless user is having trouble.” In this situation, one would count the

number of correct responses to full prompts in order to determine user's comfort level with the system and shorten the prompts accordingly.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Yuschik as taught by Surace et al. in order to determine user's comfort level with the system and switch to shorter prompts when user becomes sufficiently comfortable with the full prompts of the system (the comfort level would be empirically established by counting the number of correct responses). Such practice would follow a social-psychological observation of Surace et al. and ensure that the users are not needlessly presented with long prompts when they are comfortable with the system's interface.

As per claims 24 and 25, Yuschik does not teach that "prompt delivery system delivers tapered prompts for subsequent and different input requests made within said segment."

Surace et al. teach that "*the length of prompts should become shorter within a session and across sessions*" (Col. 10, line 34). User's performance is tracked across sessions (between different prompts) by storing user's performance results in subscriber's prompt and recognition histories (Col. 13, lines 60-65 and Col. 14, lines 52-57). Consequently, the system would adjust the prompt level (shorten it if user becomes more skilled) based on the previous history of user's responses (across all prompts, which are different from each other) and according to social-psychological theory (Col. 10, lines 6-36)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Yuschik as taught by Surace et al. in order to track user's performance across different prompts of an application and adjust the prompt length based on the system's assessment of user's skill level (social-psychological theory). Such practice would make user interface more efficient as it would ensure that the user's performance is tracked across the overall system and she is not needlessly assaulted with long prompts once she becomes comfortable with the interface.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

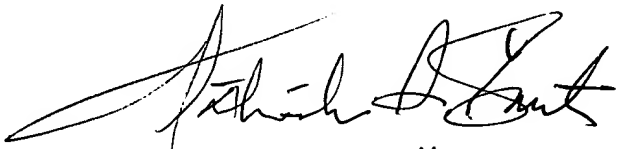
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Brant whose telephone number is (703) 305-8954. The examiner can normally be reached on Mon. - Fri. (8:30am - 5pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Talivaldis Ivars Smits can be reached on (703) 306-3011. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

DB
5/5/04



TĀLIVALDIS IVARS ŠMITS
PRIMARY EXAMINER